bulletin special

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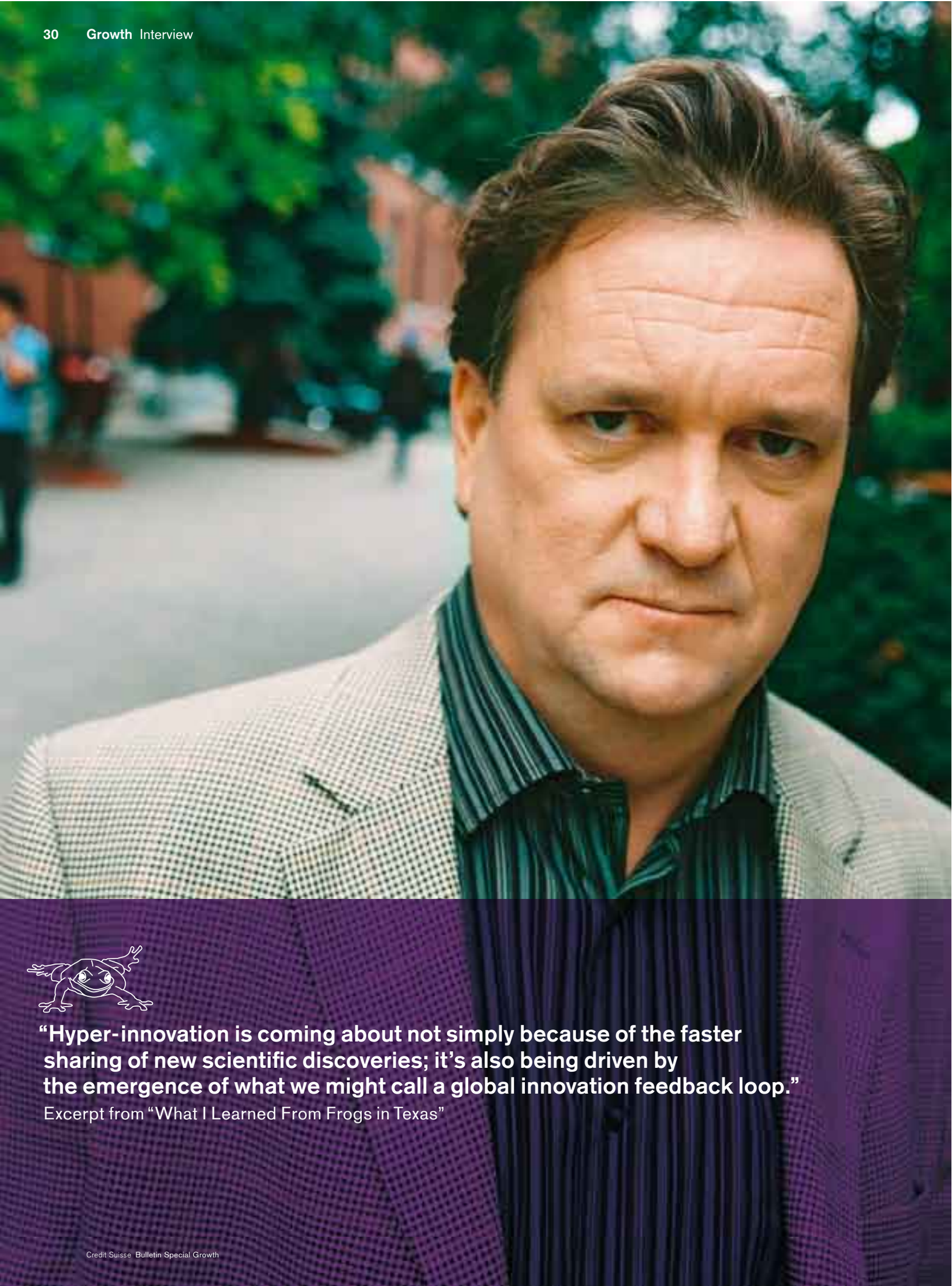
Growth

Asia Effect Boom in Asia Radiates Around the Globe

Boon or Bane Does Growth Benefit or Harm Society?

Fungus Among Us The Rise of Yeast In History



“Hyper-innovation is coming about not simply because of the faster sharing of new scientific discoveries; it’s also being driven by the emergence of what we might call a global innovation feedback loop.”

Excerpt from “What I Learned From Frogs in Texas”

Success Comes to Those Who Evolve

Interview: Michèle Bodmer

Innovation expert Jim Carroll believes that businesses and individuals must move at the same rate as the world, by changing, innovating and growing. He warns that those who don't will be left behind. Building knowledge is the key to keeping up, he says.

Bulletin: **I'm curious to know how one becomes a futurist and innovation expert. How did you get there?**
Jim Carroll: You sort of evolve into this type of career. It isn't really planned. In my case, I had an exciting, 12-year career in accounting and taxation. My background isn't something I talk about much, because people don't usually equate accountants with innovation (laughs). So, while I have a strong financial head on my shoulders, at some point I realized I was on the wrong path.

In 1982, I sent my first e-mail. While others were wondering if this fad would last, I intuitively knew that the Internet would be the centerpiece of a lot of change. I became involved in understanding that world and began looking at trends and the effects that it would have globally. Fifteen years later, I continually evolve what I do and also the topics on which I focus.

How do you personally innovate so that you always have a new message?
A lot of it comes with just observing what's going on in one industry compared with others. Many trends are similar. And, I have the luxury of time and can just relax and think a lot. That is my job. A huge factor is that I have two sons, ages 12 and 14, and I work at home and often just watch them. You can really figure out the future by watching what children and young adults do, and then asking yourself, why they do it. That really helps to understand where the future is heading.

And what exactly is it that you do as a futurist and innovation expert?
I provide insight into social, consumer and workplace trends, as well as demographic and lifestyle issues, emerging technologies and economic business trends.

This issue focuses on growth, which I'm guessing plays a big role in trends. What's the biggest growth trend today?
I think the biggest trend today is knowledge growth. It's the foundation of what will happen in every single industry, every market and every type of profession. Let me give you an example that will put this into context. In the health care industry, it's estimated that medical knowledge is now doubling every eight years. That has a myriad of impacts. There will be a rapid emergence of new medical technologies and methodologies, pharmaceuticals and treatments. And, no medical professional can possibly know everything there is to know, so we are seeing huge fragmentation in terms of every type of medical career, and that fragmentation will continue. Knowledge growth has a huge impact on that industry, and I believe it will carry over into every industry.

Including the financial sector?
The argument about what's happening in the medical world is definitely also true for financial services. Looking at the financial sector, everything is becoming specialized in terms of skill sets and the uniqueness of products that are being introduced into the market. The industry is becoming specialized in terms of current and existing tax regulations, treaties, regulatory requirements, and so forth. So, it's safe to say that the relentless growth of knowledge is necessary in order for everyone in every market to continue to do their jobs. >

Photo: R. Kelly Clipperton

Jim Carroll is a leading international futurist, and innovation and business trends expert. The Canadian provides unique insight into business, economics, current events, social and cultural trends, as well as, demographic, lifestyle and technology issues. In 2006, BusinessWeek named Carroll as one of four leading sources for insight on innovation and creativity. He has a 15-year track record for providing independent guidance to a diverse client base, including the Walt Disney Corporation, Nestlé, Motorola, Caterpillar, Verizon, the BBC and the Swiss Innovation Forum. Carroll works with his clients to help them deal with the future through increased creativity and innovation. Along with his blog and columns he writes for various publications, he is also the author of several books, including "What I Learned From Frogs in Texas: Saving Your Skin With Forward Thinking Innovation" and "Ready, Set, Done: How to Innovate When Faster is the New Fast," which was published in October 2007. This book encapsulates his current key message: rapid times require bold change and new levels of creativity and innovation within every organization.

How do you define knowledge growth and what are the drivers?
Knowledge growth is the rapid evolution of science. That is at the heart of everything. I have a statistic that I pulled out of a publication on chemistry that illustrates this, and the numbers are mind-boggling. According to this article, there were a couple hundred known chemical substances at the beginning of the last century. Today, that number has reached 13 million. The growth is enormous. In fact, by 2025 we will have 80 million known chemical substances, and by 2100 that number will reach 5 billion.

How does this rapid evolution impact the daily life of the average individual?
Well, the reason Apple was able to bring the original Apple iPod to market was the discovery of just one single new chemical substance that permitted the miniaturization of the hard disk to fit within its compact form. There you have one single new chemical substance that led to the emergence of a new billion dollar market.

Science is the root of everything that effects major development. I find that a lot of the media and the press are talking about Web 2.0, YouTube and Facebook and similar short-term phenomena. I find these short-term trends interesting, but not terribly significant in the long term. What's significant to the economy is that science today happens faster than ever before. We are seeing that with the rapid entry of new products into the market. Knowledge growth as a whole is what's driving growth.

Should employers, for example, respond to the knowledge growth trend by providing employees with further educational opportunities?
An educator named Louis Perlman says: "Learning is what most adults will do for a living in the 21st century." I think that is the most relevant phrase I've ever heard because that is what we all must do, whether a person is a medical professional or a financial expert. Everyone must constantly learn new things in order to stay in tune with what's happening in their industries. If they don't, they will fall behind and their skills become irrelevant. So, should companies be supporting their employees in knowledge growth? To be competitive they must, otherwise their workforce, bluntly said, will be nothing but a bunch of has-beens.

What type of innovations in the next decade do you believe will be the biggest growth drivers?
Let's take the world of medicine again as an example. Twenty years from now, the entire world of health care will have changed. Today we have a system where we will try and fix people after things have gone wrong. In two decades, we will have a system that is designed predominantly to fix people before things go wrong.

The transformative shift that is driving that trend is the work that has been done with the human genetic sequence. For example, by testing a few hundred of a person's chromosomes doctors will be able to determine with 80 percent likelihood if that person is a cystic fibrosis carrier. As a result, we can shift what we do in the medical system. That shift is astounding in scope.

Do you have another example?
Another huge shift is that everything in the world is being plugged together, or connected. One day, I expect that when I get on my scale in the morning, it will send a message to my refrigerator saying: "Don't let Jim in there today." In 20 years, a lot of the devices that serve us in our daily life will have intelligence, connectivity and location awareness embedded within them. That will also create a huge shift in the way we interact with the world around us.

Let's look at the short term. What growth trends are you forecasting over the next five years?
I think the big issue that everyone is slowly waking up to now is workforce management and skills issues. It all goes back again to knowledge growth, the specialization of skills and constant knowledge refreshment. I think that we are faced with a very dramatic skills shortage, and it's not just related to the retirement of baby boomers. It's the fact that skills are becoming so specialized. If we don't have a strategy to lock up these skills, and to access skills at a very fast pace, we will all be big losers. That is one of the biggest strategic issues that companies, big or small, have to deal with immediately.

You've focused a lot on specialized skills, but what about the general skills?
The world of medicine again provides a good example. In the US health care industry, there is a new line of work emerging of medical professionals called hospitalists. They are the ultimate generalists. Their role is to steer the patient through the increasing complexity of the health care and insurance system. They must understand what the increasing number of specialists do, and navigate the patient in the right direction.

Photo: R. Kelly Clipperton

The same thing is happening in every industry that has increasingly fragmented into either specialized or very specialized skills. Therefore we will also see the emergence of the extremely talented generalist to guide people through the complexities of what exists in many industries. There are big career growth opportunities here for people who are better suited to be generalists.

Innovation is a word that is tossed around a lot. What's your definition?

Most people think of Apple iPod when they are asked to give an explanation of innovation. People think innovation is limited to new product development. It's much more than that. It's having an organization where everybody, from the CEO on down, is always asking: "What can we do to run the business better? What can we do to grow the business? What can we do to transform the business?" The only way to stay ahead of the game is through constant innovation with those three fundamental questions.

If a company gets into that line of thinking there are huge opportunities for innovation. It can start with its business model, to its business processes to staffing methodology and to customer service. We can also innovate with the type of insight we use to understand how quickly our markets are changing. This is important, as it helps everybody to realize that innovation does not just come from techies.

Is that the key message you give to the heads of the companies that you are consulting?

They turn on the TV, see people talking about innovation, and again it's the products that make the headlines. Of course Steve Jobs is creating cool and wonderful things, but that isn't necessarily what innovation is.

Do the companies that bring you in expect a quick innovation fix?

A lot of companies expect miracles, and I explain to them that I can help their staff understand what innovation is, why it's necessary given this high-velocity economy concept, and I can also make it very relevant in terms of the very rapid change occurring in the world of retail and beyond. So, will companies that hire me walk away with an instant solution and a massive culture change? No. But will they be on the path of understanding to a greater degree what innovation is and what they do? Most certainly.

Can innovation really be taught or learned? Isn't it just something that a person either has or doesn't have?

I don't think that's true. If you have a CEO who instills that message and says: "Look, everything around us is changing rapidly and we have to watch these developments, understand them, and constantly ask if we are doing the right thing or if we should be doing something differently to deal with the rapid change surrounding us," then you will have a very innovative organization.

And innovation is the key factor for growth?

It's absolutely critical. If a company continues to do just what it has been doing for the past 10 years, it will come to realize that it's stagnating. If you don't move at the same rate the world does, by changing, innovating and growing, you will be left behind.

Are there a lot of opportunities for innovation that are hidden in plain sight?

I think so, because many people think it's just something for the special people, who do special things. I go into organizations that have created an innovation team and have found that the team has silent meetings. That is just silly. Building these teams creates rumors and uncertainty in the staff who, of course, are wondering just what it's exactly that these people are doing. Other companies think that putting out a suggestion box is enough to kick-start innovation. That is ludicrous. Innovation isn't magic. The world is changing rapidly and we have to change to keep up with it.

So what's the recipe to kick-start innovative thinking?

I think it's about having your entire organization understand everybody is responsible for constantly figuring out how they need to change to keep up with the rapidly changing world. They need leadership that supports and encourages them to be open and share ideas, and that leadership needs to hammer home that message on a regular basis. It's easier for small companies to do this because they are not weighted down by the bureaucracy that actually clogs up a lot of the big innovations. No matter what industry you work in, big or small, big changes are a given, so my message is: "Keep up, continually change what you do and how you do it to be successful."

What final words of advice would you give to individuals and companies?

You build and grow by trying new things, whether you succeed or fail. We all learn from our failures. The bigger risk isn't evolving with the pace of the world. <

Ten Great Words of Innovators

1 Observe. Take the time to look for the key trends that will impact your organization and the industry in which you compete.

2 Think. Analyze your observations: spend more time learning from what you see happening around you.

3 Change. In a time of rapid change, you can't expect to get by with what has worked in the past – you must be willing to do things differently.

4 Dare. Have you lost your ability to take risks?

5 Banish. Get rid of the words and phrases that steer you into inaction and indecision.

6 Try. How many of your people have lost their ability to adapt to changing circumstances because they've lost their confidence?

7 Empower. In a world of rapid change, you can't expect that rigidly defined rules will be the appropriate response to changing circumstances.

8 Question. Go forward with a different viewpoint by challenging assumptions and eliminating habit.

9 Grow. Stop focusing on cutting costs – build the business instead.

10 Do. Renew your sense of purpose, and restore your enthusiasm for the future by taking action.

Source: www.jimcarroll.com